



*Dual Alarm AM/FM Clock Radio
with **SmartSet**®
Automatic Time Setting System*

OWNER'S MANUAL

CKS2020

Visit our web site at www.emersonradio.com



Congratulations!

And thank you for purchasing the SmartSet® Clock Radio from Emerson Research. SmartSet® is the world's first and only LED clock radio that will automatically set itself to the correct 'Year', 'Month', 'Date', 'Day', and 'Time' as soon as you plug it in. The only thing you have to do is tell the SmartSet® what time zone you are in, and the built in computer does everything else for you immediately. And not only the first time, but every time the power is interrupted as well.

We all know how annoying it is to wake up in the morning and see the dreaded flashing "12:00" display on our clocks or clock radios. This means that your power was interrupted some time during the night while you were sleeping and your clock doesn't know what time it is anymore. Unfortunately it probably also means that you are late for work, or for school, again. But with your SmartSet Clock Radio the dreaded flashing "12:00" display is a thing of the past. The SmartSet® resets itself as soon as the power is restored and gets you up on time, every time.

And if that isn't enough, the SmartSet® computer also knows when Daylight Saving Time begins and ends and it will adjust itself for those changes automatically for the next 99 years! Leap Years too! And best of all, the long life lithium battery backup battery is already installed in your radio. You don't have to remember to put a new 9-volt battery in your radio every 6 months. Under normal circumstances the lithium battery can last for up to 5 years, and when it does need to be changed, a low battery indicator will come on to let you know. The CR2430 lithium battery is available almost anywhere that batteries are sold and it costs about the same as a normal 9-volt battery. You can do the math yourself. Change the built in lithium battery after 5 years, or buy a 9-volt battery when you buy your radio and every 6 months from then on. That's a 'no-brainer'. You'll save so much money on batteries it's like getting the SmartSet radio for 'free'.

The SmartSet® also gives you dual alarms that can be set to go off on weekdays only, weekends only, or all 7 days. You can set one alarm to wake you up to buzzer Monday through Friday when you have to get up early, and use the second alarm to wake you up to soft music on Saturday and Sunday when you can sleep in. Someday all clocks and clock radios may be this smart. But today the technology is only available from Emerson Research. Good Housekeeping magazine was so impressed with SmartSet® that it was selected for their "Good Buy 2000 Award" as one of the seven most innovative products of the year 2000.

We're sure you'll be happy and amazed by your SmartSet® Clock Radio, and that it will give you many years of enjoyment and dependable service.

Once again, all of us at Emerson Research thank you for your purchase.

For future reference, record the Serial Number here: _____



IMPORTANT NOTES



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

**WARNING: TO PREVENT FIRE OR SHOCK HAZARD,
DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.**



DANGEROUS VOLTAGE

Uninsulated Dangerous Voltage, that may be of sufficient magnitude to constitute a risk of electric shock to persons is present within this product's enclosure.



ATTENTION

The Owner's Manual contains important operating and maintenance instructions.

For your safety, it is necessary to refer to the manual.

FCC INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

PREPARATION FOR USE

UNPACKING AND SET UP

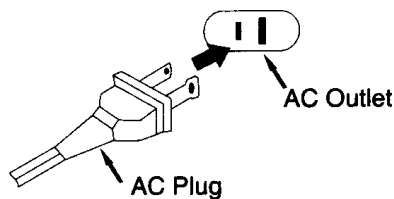
- Remove the radio from the carton and remove all packing material from the radio. We suggest that you save the packing material, if possible, in the unlikely event that your radio ever needs to be returned for service. The original carton and packing material is the only safe way to pack your radio to protect it from damage in transit.
- Remove any descriptive labels or stickers on the front or top of the cabinet. Do not remove any labels or stickers from the back or bottom of the cabinet.
- Note the serial number on the bottom of your radio and write this number in the space provided on Page 1 of this manual.
- Place your radio on a level surface such as a table, desk or shelf, convenient to an AC outlet, out of direct sunlight, and away from sources of excess heat, dirt, dust, moisture, humidity, or vibration.
- Unwind the AC power cord and extend it to its full length. The FM antenna is built in to this cord. It must be fully extended to provide the best FM reception.

POWER SOURCE

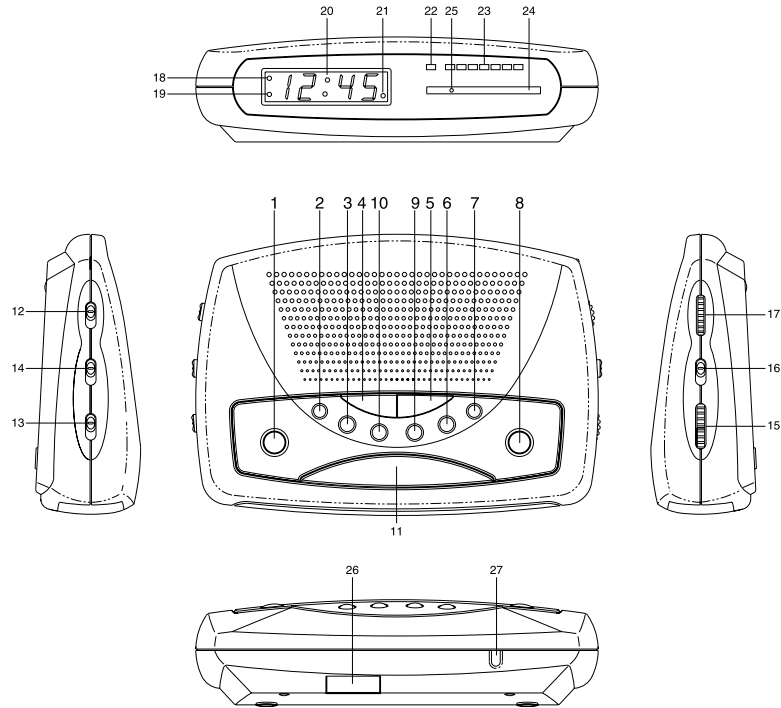
This radio is designed to operate on normal 110V-120V 60Hz AC power only. Do not attempt to operate the radio on any other power source. You could cause damage to the radio that is not covered by your warranty.

This radio should be connected to an AC outlet that is always 'live'. Do not connect it to an outlet that is controlled by a wall switch. When the power to the radio is interrupted, the built in lithium battery takes over to maintain the time and alarm settings. To maximize the life of the lithium battery keep the radio connected to a 'live' AC outlet at all times

You will note that this system is equipped with a polarized AC power plug having one blade wider than the other. This is a safety feature. If this plug does not fit into your existing AC outlet, do not try to defeat this safety feature by filing the wide blade to make it fit into your outlet. If this plug will not fit into your outlet, you probably have an out-dated non-polarized AC outlet. You should have your outlet changed by a qualified licensed electrician.



LOCATION OF CONTROLS AND INDICATORS



Top Panel

Right Side

1. Sleep button (sleep to music timer).
2. Time Zone button.
3. Alarm Mode button.
(weekdays/weekends/everyday alarm).
4. Alarm 1 setting button.
5. Alarm 2 setting button.
6. Down button.
7. Up button.
8. Radio On/Off button.
9. Date setting button.
10. Time setting button.
11. Snooze (Sleep Off) button.

15. Tuning control.
16. Band switch (AM/FM).
17. Volume control.

Front Panel

18. AM indicator.
19. Alarm 1 'On' indicator.
20. Time/Date display.
21. Alarm 2 'On' indicator.
22. Low Battery indicator.
23. Day indicators.
24. Tuning Dial.
25. Lighted Dial Pointer.

Left Side

12. Display Dimmer switch (Low/High).
13. Alarm 1 selector switch.
(Buzzer/Radio/Off).
14. Alarm 2 selector switch.
(Buzzer/Radio/Off).

Back Panel

26. Back up battery compartment.
27. AC power cord.

OPERATING INSTRUCTIONS

SETTING THE TIME, THE FIRST TIME

Important: The first time you connect your new SmartSet® clock radio to the AC outlet the internal computer will automatically set the time correctly for the **Eastern Time Zone**, which is the initial default setting. The display will scan for a few seconds and then show the correct month, date, day and time in the Eastern zone. If you live in the Eastern Time zone, there's nothing else to do. Your clock is set correctly and running.

If you do not live in the Eastern Time zone you must change the default zone display to your own zone. You only do this one time and the SmartSet® will remember the new default zone setting and will always return to that setting after a power interruption

There are 7 time zones programmed into your SmartSet® clock radio as follows:

Zone 1	—	Atlantic Time
Zone 2	—	Eastern Time
Zone 3	—	Central Time
Zone 4	—	Mountain Time
Zone 5	—	Pacific Time
Zone 6	—	Yukon Time
Zone 7	—	Hawaiian Time

To change the default time zone display, depress the Time Zone button. The number "2" will appear on the display indicating that the default zone is Zone 2, Eastern Time. Hold the Time Zone button and then press either the Up or Down buttons until your own time zone appears on the display, then release the buttons. The clock display will change to the correct time in the time zone you selected. The clock will always return to the correct time in the zone you selected after every power interruption. If you move to a different time zone, simply change the default zone display to the new zone and the SmartSet® will remember that setting for you.

DATE DISPLAY

To see the correct date at any time, depress the Date button. The display changes from time to month and date (MM/DD). For example, May 21st will appear as "5 21". When you release the Date button the display returns to the correct time.



YEAR DISPLAY

To see the correct year, depress the Time and Date buttons together. The display changes from time to year. When you release the Time and Date buttons the display returns to the correct time.

DAYLIGHT SAVING AND LEAP YEAR ADJUSTMENTS

All Daylight Saving and Leap Year adjustments are made automatically by the SmartSet® internal computer as follows:

- **Start of Daylight Saving Time:** At 1:59.59 AM on the first Sunday in April, the clock will automatically advance to 3:00 AM.
- **End of Daylight Saving Time:** At 2:59.59 AM on the last Sunday in October, the clock will automatically reset to 2:00 AM.
- **Leap Year:** At 12 Midnight on February 28th, the calendar display will change to "2. 29"

MANUAL TIME ADJUSTMENTS

Some people like to set their clocks 5 to 10 minutes fast to make sure that they will always be on time. Even though the SmartSet® sets the time by itself, you still have the option of adjusting the time manually if you wish.

To manually adjust the time display depress and hold the Time button, and press either the Up or Down buttons to adjust the time display ahead or back as desired. Each press of the Up or Down buttons will change the display by one minute. If you hold the Up or Down buttons the display will continue to change. The display will change slowly at first, one minute at a time. But if you continue holding the Up or Down buttons the display will change rapidly.

Note: If you manually adjust the time, your new setting is entered into the SmartSet® memory. If the power is interrupted, the display will return to your new setting, not the original setting, when the power is restored.

ADJUSTING THE WAKE UP TIMES

Your SmartSet® clock radio has two separate alarms that can be set and used independently. You may use the alarms to wake two people at different times, or you may use one alarm for weekdays and the other for weekend wake up times. The procedure for adjusting the wake up time is the same for both Alarm 1 and Alarm 2.





1. Depress and hold either the Alarm 1 or Alarm 2 setting button. The display will change from the correct time to the Alarm 1 or Alarm 2 wake up time.
2. While holding the Alarm 1 or Alarm 2 setting button, depress either the Up or Down button to move the display ahead or back to your desired wake up time.
3. When the desired wake up time appears on the display, release the Up or Down buttons.

Note: Be sure that you have set the wake up time correctly by observing the AM indicator. If the AM indicator is 'On' the wake up time is "AM". If the AM indicator is 'Off', the wake up time is "PM".

4. When the desired wake up time (AM or PM) appears on the display, release the Alarm 1 or Alarm 2 setting buttons.

SELECTING THE ALARM MODE

Your SmartSet® clock radio allows you to select from among three different alarm operation modes for either alarm. The alarm modes are:

- Weekdays only – the alarm will only turn on Monday through Friday;
- Weekends only – the alarm will only turn on Saturday and Sunday;
- Everyday – the alarm will turn on all 7 days.

To check the Alarm Mode setting for Alarm 1, depress the Alarm 1 setting button. The display will show the Alarm 1 wake up time and the day of the week indicators will show you the alarm mode which is selected. If all 7 indicators are 'On', the Everyday mode is selected. If only the Monday through Friday indicators are 'On', the Weekdays only mode is selected. If only the Saturday and Sunday indicators are 'On', the Weekends only mode is selected.

To change the Alarm Mode setting for Alarm 1, hold the Alarm 1 setting button and press the Alarm Mode button until the day indicators show the desired mode setting, Weekdays only, Weekends only, or Everyday operation. Release the Alarm Mode and Alarm 1 setting buttons and the display will return to the correct time.

CHECKING THE WAKE UP TIMES AND ALARM MODE

Whenever you want to check the wake up time or the alarm mode settings, simply press either the Alarm 1 or Alarm 2 setting buttons. The display will change from correct time to wake up time and the day indicators will show you the alarm mode which is currently selected.

Release the Alarm 1 or Alarm 2 setting buttons to return to correct time.





LISTENING TO THE RADIO

1. Set the Band selector to the desired band, AM or FM.
2. Set the Volume control to a low setting.
3. Press the Radio On/Off button to turn the radio 'On'. The radio dial pointer will light.
4. Select your desired station with the Tuning control.
5. Adjust the Volume control to the desired setting.
6. When you are finished listening, press the Radio On/Off button to turn the radio 'Off'. The radio dial pointer light goes off.

ANTENNA INFORMATION



AM - The AM bar antenna is inside the cabinet. If AM reception is weak, change the position of cabinet until the internal antenna picks up the strongest signal.

FM - The FM antenna is built in to the AC power cord. If FM reception is weak try varying the position and direction of the power cord until you find the strongest signal.

WAKE TO RADIO

1. Turn the radio 'On' and select the band, station, and volume level that you wish to hear when the alarm comes on, then turn the radio 'Off' again.
2. Reconfirm the wake up time and alarm mode settings for the alarm you are using, Alarm 1, Alarm 2, or both alarms.
3. Set the Alarm selector switch for one or both alarms to the 'Radio' position. The appropriate Alarm 1 and/or Alarm 2 indicators will light up to confirm that the alarms are set.
4. At the selected wake up time the radio will turn 'On'. It will play for one hour and then shut off automatically.
5. To stop the radio sooner, press either the appropriate Alarm 1 or Alarm 2 button, or press the Radio On/Off button. The radio will stop but the alarm remains set and will turn the radio on again at the same time on the following day (depending on the Alarm Mode setting).



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6. If you do not want the alarm to turn the radio on the following day, set the appropriate Alarm selector to the 'Off' position.

WAKE TO BUZZER

1. Reconfirm the wake up time and alarm mode settings for the alarm you are using, Alarm 1, Alarm 2, or both alarms.
2. Set the Alarm selector switch for one or both alarms to the Buzzer (Buzz) position. The appropriate Alarm 1 and/or Alarm 2 indicators will light up to confirm that the alarms are set.
3. At the selected wake up time the buzzer will sound. It will continue for one hour and then shut off automatically.
4. To stop the buzzer sooner, press either the appropriate Alarm 1 or Alarm 2 button. The buzzer will stop but the alarm remains set and will turn the buzzer on again at the same time on the following day (depending on the Alarm Mode setting). To stop the buzzer and turn on the radio immediately, press the Radio On/Off button instead of the Alarm 1 or Alarm 2 button.
5. If you do not want the alarm to turn the buzzer on the following day, set the appropriate Alarm selector to the 'Off' position.

RADIO AND BUZZER OPERATION

You may also set one alarm for wake to radio and the other for wake to buzzer. Just set the Alarm 1 and Alarm 2 selector switches to the desired positions.



SNOOZE ALARM

After the radio or buzzer alarm sounds in the morning you may press the Snooze Bar for a few more minutes sleep. The alarm will stop for approximately 9 minutes and then turn on again. You may repeat the Snooze operation up to seven times if desired, but after the seventh time the alarm will not turn on again.

SLEEP TO MUSIC TIMER

You can program the sleep timer to play the radio for up to 90 minutes and then shut off automatically.

1. Press the Sleep On button. The display will briefly show "10" and the radio will begin to play. After 10 minutes the radio will shut off automatically. Each time you press the Sleep button the sleep timer will start at 10 minutes. This is the sleep timer default setting.

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2. To increase or decrease the amount of time that the radio will play before shutting off, hold the Sleep On button and press either the Up or Down button to change the display to the desired sleep time, up to a maximum of 90 minutes or at minimum of 2 minutes.

Note: When you change the sleep timer from the 10 minute default setting to a different setting, the new setting becomes the default setting. Whenever you activate the sleep timer it will begin with your new default setting and count down to zero from that point.

3. To cancel the sleep timer before it counts down to “00” and shut the radio ‘Off’ immediately, press the Snooze Bar.

IMPORTANT: Remember that the station and volume settings you choose for the Sleep To Music operation are the same settings you will hear if you set the alarm for wake to radio the following morning.

DIMMER CONTROL

The Dimmer control was set to the ‘High’ position at our factory. If you find the clock display is too bright in a darkened room, set the Dimmer control to the ‘Low’ position.

CHANGING THE LITHIUM BATTERY

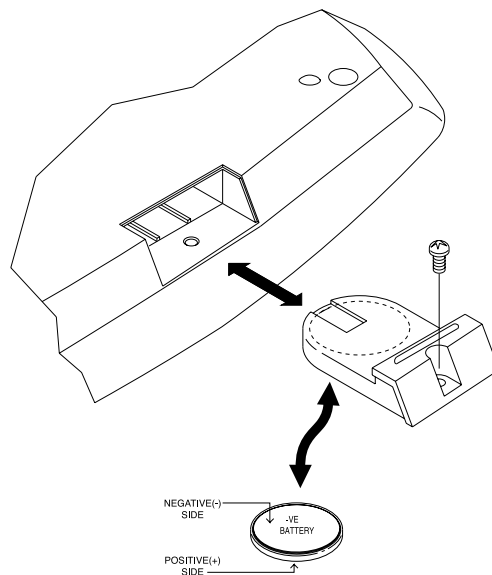
Like all batteries, eventually the built in lithium battery will need to be replaced. A number of factors, such as, the length of time between the date the radio was manufactured and the date you plugged it in for the first time determine the amount of time before replacement. During this initial storage period, the lithium battery is supplying power to the SmartSet® computer memory. Once you plug the radio in, your household outlet supplies the power, and the battery is not being used. A fresh lithium battery can supply power to the SmartSet® computer for at least 3 years even if it is never connected to an AC power supply. If your radio was connected to your AC supply within a few months after it was manufactured, and you experience only the normal, nuisance type, short duration power interruptions, your battery may last for up to 5 years or even longer.

When the battery power drops below a certain level, the Low Battery indicator will come on. When you see this indicator, you should change the battery as soon as it is convenient for you to do so. To change the battery proceed as follows:

1. Purchase a replacement 3V lithium battery wherever batteries are sold. The battery type is CR2430 or equivalent.
2. Remove the battery from its package so it is ready to install.
3. Important: Leave the radio power cord connected to your AC outlet. This will provide power to the SmartSet[®] computer memory while the original lithium battery is removed.
4. Turn the radio upside down and use a small screwdriver to remove the screw securing the battery holder to the cabinet.

BE CAREFUL NOT TO LOSE THIS SMALL SCREW!

5. Turn the radio right side up and remove the battery holder. Then remove the original battery from the holder and insert the new battery into the holder the same way, with the positive (+) side facing up. Slide the holder with the new battery back into the opening in the cabinet.
6. Turn the radio upside down again and replace the screw that secures the battery holder in the cabinet.
7. Turn the radio right side up and confirm that the Low Battery indicator is 'Off'.
8. Save these instructions. You'll have to do this again five to eight years from now!



RESETTING THE CLOCK AFTER A TOTAL MEMORY LOSS

If you do not change the built in lithium battery within a reasonable period of time after you see the low battery warning indicator, the lithium battery may become exhausted and will no longer be able to supply back up power to the SmartSet® internal computer. If the unit is disconnected from the AC outlet after the battery is exhausted, or if a power interruption occurs, the SmartSet® memory will be lost and the clock will need to be reset when the power is restored. Be sure to install a fresh lithium battery before you reset the clock, otherwise the clock will need to be reset each time the power is interrupted.

If the lithium battery is exhausted and you experience an interruption in the AC power supply, the clock will reset itself to its initial default setting when the power is restored. The initial default setting is 6:00 AM, Thursday, January 1st (1 1), 1998. If you notice that the time on your SmartSet® clock radio is completely incorrect, and the day indicator is also wrong, press the Time and Date buttons together to see the year. If the year display is showing "1998" you probably experienced a total memory loss. To reset the clock after a total memory loss, proceed as follows:

1. Follow the instructions on page 10 and install a new CR2430 lithium battery in the battery compartment.
2. Connect the radio to your AC outlet and let the clock set itself.
3. Depress the Time and Date buttons together. The display will change from 'time' to 'year'.
4. While holding the Time and Date buttons, press the Up button to set the display to the correct year, then release the buttons.
5. Depress the Date button. The display will change from 'time' to 'month/date' (mm/dd).
6. While holding the Date button, press the Up button to set the display to the correct month and date. The Day indicator will change automatically as you adjust the month/date settings. When the correct month and date appear on the display, release the buttons.
7. Depress the Time button and the Up button to set the display to the correct time. Be sure to confirm that you have set the time correctly to 'AM' or 'PM' by observing the AM indicator.
8. After you set the time, reconfirm that the Day, and Month/Date displays are still correct. Make final adjustments if necessary.

The SmartSet® clock memory is now reset and the new lithium battery will maintain it for the next 5 to 8 years, depending on the number and duration of the power outages you experience.

IMPORTANT NOTE:

After resetting the clock, don't forget to reset your wake up times, and alarm mode settings, and sleep timer settings as well.

CARE AND MAINTENANCE

If the cabinet becomes dusty, wipe it with a soft cloth. If the cabinet becomes smudged or dirty, clean it with a soft, slightly dampened cloth. Never allow water or any liquid to get inside the cabinet. Never use any abrasive cleaners or cleaning pads as these will damage the finish of your radio.

 Emerson SERVICE	TO FIND THE LOCATION AND PHONE NUMBER OF YOUR NEAREST SERVICE CENTER PERMITTED TO PERFORM WARRANTY...
CALL TOLL FREE: 1-800-695-0098	
FOR ADDITIONAL SET-UP OR OPERATING ASSISTANCE PLEASE CALL: 1-972-884-2350	
FOR CUSTOMER SERVICE, PLEASE WRITE TO: Emerson Radio Corp. Consumer Affairs Dept. 1901 Diplomat Drive, Farmers Branch, TX 75234	

**EMERSON RADIO CORP.
LIMITED WARRANTY**

What does this warranty cover ? Any manufacturing defects in original material, including original parts and workmanship, under normal use and conditions.

For how long? For a period of ninety (90) days from the date of original purchase in the U.S.

What will we do ? If you need service under this Warranty, and you provide us with the dated proof of purchase, we will provide repair service at no charge for labor and parts at an authorized Depot Repair Facility, or replace the product in our discretion.

How do you make your warranty claim ? If it becomes necessary to repair your unit, you can obtain the name and mailing location of a Depot Repair Facility by dialing **1-800-695-0098**. You should pack your unit in a well-padded heavy corrugated box, enclose your check or money order payable to the Depot Repair Facility in the amount of **\$9.00** to cover the return shipping and handling costs, and enclose a copy of your proof of purchase (warranty service will not be provided without a dated proof of purchase). Finally, you should ship the unit prepaid via UPS or parcel post (insured).

What does your warranty not cover ? Your warranty does not cover the following :

- Damage from negligence, misuse, abuse, accident, or failure to follow operating instructions.
- Use of product in a commercial application or rentals.
- Changes or repairs by anyone other than an authorized Depot Repair Facility.
- Damage because your unit is improperly connected to the equipment of other manufacturers.
- Unit on which the serial number has been defaced, modified or removed.
- Damage to equipment not properly connected to the product.
- Cost incurred in shipping your unit to and from an authorized Depot Repair Facility.
- Ordinary adjustments which you can perform as outlined in the owner's manual.
- Signal reception problems caused by external antenna or cable systems.
- Products purchased, used, serviced, or damaged outside of the United States.
- Damage to compact discs or cassettes.

What other limitations apply to your warranty ?

THIS WARRANTY IS NON-TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL PURCHASER AND DOES NOT EXTEND TO SUBSEQUENT OWNERS OF THE PRODUCT. THIS WARRANTY IS VALID ONLY IN THE UNITED STATES OF AMERICA. ANY APPLICABLE IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED IN DURATION TO A PERIOD OF THE EXPRESSED WARRANTY AS PROVIDED ABOVE BEGINNING WITH THE DATE OF ORIGINAL PURCHASE AT RETAIL AND NO WARRANTIES, WHETHER EXPRESSED OR IMPLIED, SHALL APPLY TO THE PRODUCT THEREAFTER. WE MAKE NO WARRANTY AS TO THE FITNESS OF THE PRODUCT FOR ANY PARTICULAR PURPOSE OR USE.

THE EXTENT OF OUR LIABILITY UNDER THIS LIMITED WARRANTY IS THE REPAIR OR REPLACEMENT PROVIDED ABOVE AND IN NO EVENT WILL OUR LIABILITY EXCEED THE PURCHASE PRICE PAID BY THE PURCHASER OF THE PRODUCT. UNDER NO CIRCUMSTANCES WILL WE BE LIABLE FOR ANY LOSS, DIRECT, INDIRECT, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGE ARISING OUT OF OR IN CONNECTION WITH THE USE OF THIS PRODUCT.

How does state law apply to your warranty ?

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, BUT YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. SOME STATES DO NOT ALLOW LIMITATIONS ON IMPLIED WARRANTIES OR EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGE, SO THESE RESTRICTIONS MAY NOT APPLY TO YOU.

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